

CREB3L1 (H-117): sc-292483

BACKGROUND

CREB3L1 (cAMP-responsive element-binding protein 3-like protein 1), also designated OASIS (old astrocyte specifically induced substance), is a 519 amino acid transcription factor that activates unfolded protein response target genes during endoplasmic reticulum (ER) stress. CREB3L1 may be specifically involved in the ER-stress response in astrocytes of the central nervous system. CREB3L1 increases inducible NOS1 expression and downregulates ASCT1, a receptor for Syncytin-1, which is highly expressed in glia of individuals affected by multiple sclerosis. CREB3L1 is localized to the ER membrane until the ER undergoes stress, at which point CREB3L1 is cleaved sequentially by proteases SKI-1 and S2P and its N-terminus translocates into the nucleus. There are two isoforms of CREB3L1 that are produced as a result of alternative splicing events.

REFERENCES

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- Murakami, T., et al. 2006. Cleavage of the membrane-bound transcription factor OASIS in response to endoplasmic reticulum stress. *J. Neurochem.* 96: 1090-1100.
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- Schubert, S.W., et al. 2008. bZIP-Type transcription factors CREB and OASIS bind and stimulate the promoter of the mammalian transcription factor GCMa/Gcm1 in trophoblast cells. *Nucleic Acids Res.* 36: 3834-3846.

CHROMOSOMAL LOCATION

Genetic locus: CREB3L1 (human) mapping to 11p11.2; Creb3l1 (mouse) mapping to 2 E1.

SOURCE

CREB3L1 (H-117) is a rabbit polyclonal antibody raised against amino acids 91-207 mapping near the N-terminus of CREB3L1 of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CREB3L1 (H-117) is recommended for detection of CREB3L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CREB3L1 (H-117) is also recommended for detection of CREB3L1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CREB3L1 siRNA (h): sc-72995, CREB3L1 siRNA (m): sc-72996, CREB3L1 shRNA Plasmid (h): sc-72995-SH, CREB3L1 shRNA Plasmid (m): sc-72996-SH, CREB3L1 shRNA (h) Lentiviral Particles: sc-72995-V and CREB3L1 shRNA (m) Lentiviral Particles: sc-72996-V.

Molecular Weight of CREB3L1: 57 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



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Try **CREB3L1 (F-8): sc-514635**, our highly recommended monoclonal alternative to CREB3L1 (H-117).